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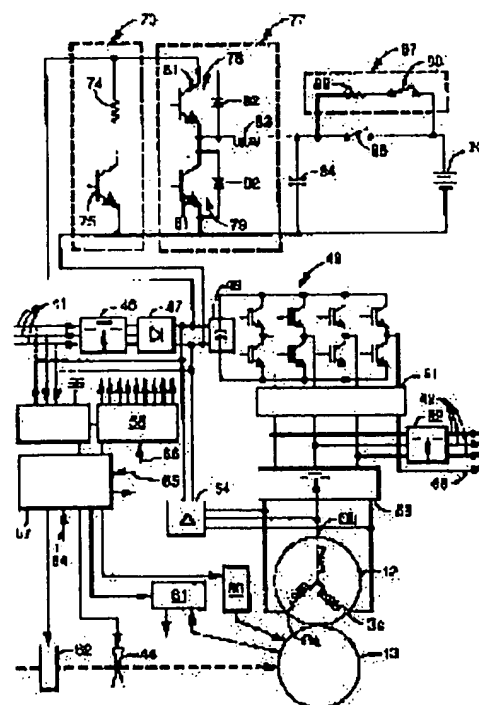
US

(54) TURBINE GENERATOR-MOTOR CONTROLLER

(57)Abstract:

PROBLEM TO BE SOLVED: To keep a fuel supply at a minimum allowable level and enable maximum load of a power by a method, wherein a turbine is started through a pulse width modulation inverter, and a fixed current, fluctuating voltage and frequency, and an AC power are supplied for driving a motor by which the turbine is accelerated.

SOLUTION: While a permanent magnet turbine generator-motor 10 is in a starting stage, a starting power supply contactor 46 and a generator contactor 53 are closed, and an output contactor 52 is opened. Once a self-contained operation has been established, the contactors 46 and 53 are opened, a PWM inverter 49 is reconstructed so as to have a controlled 60 Hz mode, the contactor 52 is closed and the inverter 49 is connected to an AC output 42. If the contactor 46 is closed while the contactor 53 is kept open, a single phase or 3-phase utility power supply makes a bridge rectifier 47 operate via the contactor 46 and a precharged power supply is provided. A voltage is supplied to a path capacitor 48 linked with the inverter 49, and the velocity of the inverter 49 is raised to a value which is sufficient to start a gas turbine 31 by using a governable drive motor as a starter.



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